Mahan Hall, Maury Hall, Sampson Hall
(Originally The Academic Group)
United States Naval Academy
Annapolis
Anne Arundel County
Maryland

HABS No. MD-329-6

HABS
MD,
2-ANNA,
65/6-

PHOTOGRAPHS

HISTORICAL AND DESCRIPTIVE DATA

Historic American Buildings Survey
National Architectural and Engineering Record
National Park Service
Department of the Interior
Washington, D.C. 20240

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HISTORIC AMERICAN BUILDINGS SURVEY

MAHAN HALL, MAURY HALL, SAMPSON HALL
(The Academic Group)

HABS No. MO-329-6

Location: United States Naval Academy, Annapolis, Anne Arundel County, Maryland.

Present Owner: United States Government

Present Occupant and Use: U.S. Naval Academy - classrooms and auditorium.

Significance: The Academic Group is one of the three centerpieces of Ernest Flagg's grandiose plan for the Naval Academy. The intercounnected group of three buildings closes off the northwest end of the quadrangle, and faces Bancroft Hall on axis. Although the group is less grand than originally envisioned by the architect, it remains a major American example of the Beaux-Arts style.

PART I. HISTORICAL INFORMATION

A. Physical History:

1. Date of erection: 1907 (first occupied).

2. Architect: Ernest Flagg.

3. Buiders, etc: The major contractor for all three original buildings was John Pierce of New York City.

4. Original Plans and Construction:

a. Mahan Hall: The central building, exists today in substantially the same condition and appearance as when first used. The original functions included those of the Academy Library, which has since been removed. This did not require significant changes in the fabric, simply a removal of non-permanent fixtures. Otherwise, all signficant original features may be observed in the building today. The SE wall of the first tower-story was to have been a large "screen" to the mansard on that face, with ends which sloped down along the edge of the roof but was evidently built as it appears today. The walls of the auditorium must have differed in their original state, since a good deal of attention was paid to improving the room's accoustical qualities in the late 1920s. In particular, the walls of the orchestra had either oak-backed display or trophy cases lining them, or were themselves oak paneled (the paneling is still visible within wooden frames behind the present soundproofing).

The earliest views are: 1) the conceptual rendering of Flagg's comprehensive plan done by Hougton Hawley (? signature indistinct) in 1899, which agrees in principle if not in detail with the structure as it was built; 2) the drawings from Flagg's office, dated 1906 (file #191) and 1914, available at the Plan Vault of the Department of Public Works of the Naval Academy, Halligan Hall, Annapolis; 3) Flagg's publication of the Academy work in The American Architect and Building News, Vol. XCIV, N. 1697, pp. 1-8, and No. 1698, pp. 9-15. Plate 12 of No. 1697 shows an elevation and section of Mahan Hall according to Flagg's original intention, while plates 7-10 illustrate the building in photographs. The major difference here is Flagg's intention for a domed roof for the clock tower, looking rather like a telescope housing. This is borne out by a 1905 Engineering Record article, in which a planned, revolving dome for astronomical work is mentioned. This was never accomplished, and is not mentioned in Flagg's article, which is otherwise full of laments for the loss of many of his original intentions. There is also a change in the intended access to the second floor of the tower.

b. Maury Hall: The northeast academic wing, was originally subdivided into classrooms in much the same manner as today. The building has no remaining significant interior spaces, except for the stairways. Both the pair of spirals in the buildings notched corners and the straight rises at the southeast end, have their original wrought iron and oak railings, with new terazzo steps. The division of classrooms on the first and second floors was virtually the same as it is today, as evidenced by the fact that plans for the 1952 renovation of the buildings by Hall, Border and Donaldson, of Baltimore, are virtual tracings of the original plans. (Plan Vault, DPW). File drawings number 3131-3135, dated August 1913 and labeled "revised," show that the large room at the end of the northeast hyphen connecting Maury and Mahan Halls was given over to some library use. The entire third floor is shown as open and is labeled "examination room." When necessary, it could be divided into thirds longitudinally, with rolling partitions.

c. Sampson Hall: Originally intended for the use of the physics and engineering departments, and was consequently outfitted much more precisely than its counterpart, Maury Hall. Aside from a variety of fixed furniture, lab tables, sinks and cabinets (particularly in the large lab rooms of the north corner of the building), the interior was distinguished by a large lecture room with gallery on the second and third floors, at the southeast end. The gallery wrapped around the three sides of the northwest end of the room. There was a central winding staircase to the northwest of the lecture room which gave access to both levels of the room. There were built-in risers in a shallow curve on the lower floors, but the gallery seating was apparently on one level.

5. Alterations:

a. Mahan Hall: The 1906 drawings differ from the present state only in detail and in the specified use of rooms, and it has been inferred from those that the building is primarily unaltered from its original state. Differences include the rendering of simpler doors in the first floor of the tower than those which were installed. The major room of that floor is called the "Naval Institute." This set of drawings concentrates primarily on decorative treatment.

The 1914 drawing numbered 3167 (DPW) shows that the long room above the southwest balcony hall was originally subdivided into three offices and a reception room, which suggests that the existing elaborate and comprehensive plaster decoration of the whole room was a somewhat later application. The tiny railed gallery along the northeast wall of the room, which is inexplicable in its present form, is shown as giving on to a series of spaces behind the three glass trophy cases which were built into the three bays of each side of the auditorium balcony, which is situated immediately to the northeast of that wall. These spaces may be closets or the back of deep cases. These cases apparently still exist in the balcony, although their containing niches are covered with acoustical tile, with a warning sign about leaning against the glass in them. Photographs (21101a and b) in the special collections of the Nimitz Library show this as a single room, the "Professional Reading Room" in August of 1939. These photographs also show the plaster decorations in place, and that the room is obviously one continuous space. There were book cases along the window wall (double height between the windows) and both beneath and atop the tiny gallery; paintings were hung from the gallery railing, and globed light fixtures hung from the center of the ceiling panels. On the same level, the hyphens which connect Mahan to the other academic buildings were shown in the photographs to hold a catalogue room (northeast hyphen) and a librarian's office (southwest) and opened onto the main reading room which spanned the building.

The old Naval Institute room on the first floor of the tower contains much of its original features but has been compromised by the installation of air conditioning ducts and window louvers, work which was done in 1951.

The basement plan of 1914 (#3165) shows the space under the auditorium as the "Department of Electrical Engineering and Physics." The space along the northeast and southeast sides of this room is unpartitioned and its use unspecified. The long southwest room has two store-rooms, with a ladies room at the southeast end, off the southwest lobby. The area under the trophy room was occupied by medical facilities.

From southwest to northeast, the rooms were used as: Senior Medical Officer's Office; Medical Office, Dispensary; storeroom (in the large central room) the next two rooms were subdivided into four treatment rooms with two long narrow lavatory rooms along the southeast wall; and finally another treatment room. At the northeast hyphen, an arrangement of three closets and a lavatory around a "+" shaped hall has been penciled-in.

The Public Works drawing of 1960 (#15858) which is probably a record drawing to illustrate the condition at the time and not a plan for future work, shows the building as it is today. The central basement room on the southeast has become the transformer vault, with a compressor room subdivided from its east corner. The next room to the southwest contains air conditioning. The two rooms to the northeast have been designated as dressing rooms.

The old reading room, which is now known as the Hart Room, was emptied of its library cases and fixtures in 1973 and is now used as a lounge and reception room. The hyphen rooms have been converted to restroom-lounges. The long southwest balcony room was made into a student-faculty lounge for the library at and undetermined time, but judging from panelling styles, relatively recently; the stacks were removed from the stack room (the northeast balcony room) in 1973.

There were evidently some serious accoustical problems with the auditorium. These are addressed in a series of letters between the superintendent and the Johns Manville Company in the later 1920s. Johns Manville produced a soundproofing scheme which originally involved lining the walls with hair-felt. This was later perforated to improve the material when Bell and Howell installed a projection booth. Acoustical tile was added subsequently, and heavy velour drapes were also part of the solution. Part of the first soundproofing may have resulted in the obscuring of the oak paneled walls of the orchestra level. These still exist behind the present soundproofing, and appear to have been the backs of shallow (about 5" depth) trophy cases. It is not possible to tell whether or not these were integral to the first stage of construction. They extend beyond the point at which the surrounds of the arched opening of the gallery would have descended to the orchestra floor.

b. Sampson and Maury Halls: These buildings were thoroughly modernized in 1952, according to plans by the firm of Hall, Border and Donaldson of Baltimore. (Drawings on file at the plan vault of the Public Works Department at the Academy.) Not much of the original fabric was left, except for the

stair railings and some of the fixtures of Sampson, which were in any case refinished and generally placed elsewhere. The third floor of Maury was subdivided into new classrooms, probably in 1950. The buildings underwent their most recent renovation in 1967, when every vestige of original fabric was apparently removed, except for the stair rails. The lecture hall in Sampson was converted to two floors of classrooms, and the long hallway continued to the southeast end of the building, as in Maury Hall. The work was probably done by the George M. Ewing Company of Philadelphia, (Reference two letters in the Academy Archive, Box 9, Folder 11, under Superintendent's correspondence, dated 9/29/67 and 6/2/67, which refer to Ewing and to the subdivision of the lecture room, as well as numerous details.)

B. Historical Context:

The complex was built to house the Academy Library (Mahan) and to provide classroom space for general use and for the specific needs of the departments of Physics and Chemistry. These buildings constituted one of the major elements of Ernest Flagg's original plan, and closed off the northwest end of the quadrangle. The manifestation was somewhat less grand than the original Flagg scheme, which had proposed an entirely separate building for the physical sciences, off the main quadrangle, and envisioned a closed, collonaded courtyard for the academic buildings.

Mahan Hall is named for Admiral Alfred Thayer Mahan, the Naval historian. Sampson is named for Rear Admiral William Thomas Sampson, known for his role in the battle of Santiago. Maury Hall honors Lieutenant Matthew Fontaine Maury, the pioneer oceanographer.

PART II. ARCHITECTURAL INFORMATION (cf. Flagg's description in "Supplemental Material" at the end of this report: Section D).

A. General Statement (N.B.: This section applies to the entire Academic Group, which includes Maury, Mahan, and Sampson Halls).

1. Architectural character: The Mahan complex is one of the major groupings of Flagg's conception for the rebuilding of the Naval Academy, and lies axially across the major quadrangle from the Bancroft group, defining the northwest side of the quadrangle. It is rigidly axial in plan and appearance, symmetrically arranged to enclose a rectangular courtyard. On the exterior, the only violation of symmetry is in the location of two of the wing entrances, on a diagonal in plan in the far north and south corners, while the east and west corners have ground story windows. Otherwise, the parts of these buildings which have not been obscured by newer buildings have mirror images across axis.

As architect Flagg repeatedly pointed out in his 1908 American Architect articles, most of his scheme for the academy was victimized by the federal accountant's interference and rising costs. He was particularly doleful in regard to the academic group, which was to have had a raised balustraded terrace and was intended to be built entirely of granite. The early drawings (see Fig. 1 of the July 1, 1908 article) indicate that it was meant to be bigger, more complex in plan, and somewhat more consistent with Bancroft in style, having for example a colossal story combining the second and third floors. Flagg was obliged to redesign the group, and implied that the changes were drastic. As built, the entrance facade is still quite monumental, although not as richly decorated or exhuberantly modeled as Bancroft, although that is not necessarily the fault of "false-economy." Flagg's original idea, as evidenced by the early drawings and sketches, seems always to have given the Bancroft group the greater share of richness, while the Chapel was given the more stunning dimensions and made the obvious focal point of the scheme. The academic group, in comparison, was given over to what passes in the Beau-Arts for austerity.

The resulting elevations may reflect a change in stylistic temperament as much as an enforced scale-down, for economic reasons, however. The facade is a more calm branch of the Beaux-Arts version of classicism, more a suggestion of the late Renaissance than the Baroque. Fewer liberties are taken with the classical vocabulary. In general, though, the Mahan group must be recognized as an essential component of Flagg's grandiose scheme for the comprehensive design of the academy; with Bancroft it is a paradigm of monumentality and formality, an interpretation of the serious purposes and intentions of the Naval Academy as an institution, reflective of its time. Its influence has yet to be assessed, but as part of the entire scheme for the Academy, it may be regarded as an early response to the examples of the Beaux-Arts exposition complexes of the late 1890s, as well as a pioneering attempt at wholistic and unified planning and design.

2. Condition of Fabric: Generally, the condition is good. The major public spaces of the buildings are well maintained. There are serious problems in the first floor rooms of the tower, the so-called Naval Institute, however. These were obviously among the most handsome single rooms of the Academy. They were rich, but quite decidedly understated, and beautifully proportioned rooms of rather small dimensions. They have been disfigured by the insertion of huge ductwork and ventilation panels, and are not maintained at all.

B. Description of the Exterior:

1. Overall dimensions: The building is seven bays (141'-8") across the front (southeast elevation); eight bays along the sides (from southeast to northwest) clearly divided into the three bays of the

entrance and stair portion, with central hyphen connecting the building with the academic buildings, and the subsequent five bays of the auditorium poriton; and seven across the rear (northwest elevation) the five central being the shallow curve of the rear of the auditorium. The walls are overall three stories high, clearly demarked, the third being the principle and largest of the three. The clocktower, central to the facade, and in the fourth bay from southeast on the side, rises an additional five stories, the fifth being a low attic story under the low pyramidal roof.

The hyphens are three bays long and three stories high, reaching to the northeast and southwest from the central hall-bays of Mahan to the central bays of the northwestern inward-facing pavilions of the academic wings. The upper story is lower than on the other buildings.

The academic buildings (Maury and Sampson) are mirror images except for the location of corner entrances, noted in II-A-1. The inward-facing elevations (southwest for the northeast wing and northeast for the southwest wing) are 14 bays long, the three wider end bays of either extreme brought forward in pavilions of one bay's depth. The southeast elevations are four bays wide, the outside bay being a quarter circle notch in the extreme east and south corners of the group. The extreme southwest and northeast elevations are sixteen bays long, fourteen equal bays between quarter circle notches. The northwest elevations are mirror images of the southeast. The academic buildings are three stories tall, comparable to Mahan Hall, with dormers above the cornice in each bay save the corners.

2. Foundations: The foundations are concrete, and are as thick as 5' at the foots. The basement areas are 30" thick in the academic wing, up to 4' thick around the auditorium.

3. Walls: All walls are comparably faced: the ground story is granite, finely dressed and deeply rusticated, with square openings set in segmental-arch frames. The first story walls are alternate courses of ashlar granite and brick, with segmental arched windows; the third story is of brick with round arched windows. The balustrade of Mahan, most relief-work, window surrounds, quoins, cornice mouldings, and other wall articulation are of granite. The brick in the walls is the ubiquitous grey glazed brick found everywhere at the Academy, laid in English bond. Gutters, downspouts, etc., are copper. The exterior light fixtures are cast iron, painted the color of weathered copper, with glass globes. The main doors of Mahan are wood, painted copper colored, with bronze studs and large bronze knockers with Neptune holding a trident. The face of the clock is glass, painted from behind, with raised numerals and cast iron hands. The entrance steps are granite, with a centrally inset marble plaque on the wall of the ground-level landing.

4. Structural system: Comparable to the other Flagg buildings; consists of reinforced concrete and steel beams carried on masonry bearing walls of brick. The foundations and footings are of poured concrete. The great vault of the auditorium is carried on steel wires and bars suspended from the steel roof trusses within the mansard and is of cast plaster. The structure of the first floor of the clocktower is concrete beams on 16" centers supporting terra-cotta tiles, with wooden sleepers to secure the flooring.

5. Openings:

   a. Windows: Windows are uniformly aluminum awning sash, except on the upper floor of Mahan, in both interior (SE and NW) walls of the Hart room, where the original narrow-muntin wooden sash remains (with a central section of each window that pivots to open) and in the first story of the tower.

   b. Doors: The doors of Mahan are the original wooden paneled doors, generally painted the color of weathered copper. The doors into Maury and Sampson Halls are bronze, and are glazed.

6. Roofs: The roof over the Hart room is a low hip, obscured by the balustrade, and covered in slate. Next to the northwest is the roof on either side of the tower, which is flat and tarred, except for the circular copper monitors which contain the skylights for the glazed saucer domes of the stairhall. The slate covered convex mansard of the auditorium begins at the long wall (on the southeast) on the first floor of the tower, and continues along the straight sides on the SW and NE elevations, and in a shallow curve along the rear (northwest). The flanking rooms are roofed with standing seam copper (NE and SW of mansard). There are circular copper dormers in the mansard corresponding to the wall bays below. The tower roof is a low eight sided pyramid, with the sides corresponding to the principal elevations the widest. The remaining four are responses to the chamfered corners of the upper stories. This roof is also slate. The wing roofs are straight-sided slate mansards which follow the plan. The dormers are of copper, hipped to the mansard. The tops of the mansards are of metal, but are not coppered. The hyphen roofs are gabled, standing-seam copper.

C. Description of Interior (Mahan only; there are no significant interior spaces in Maury or Sampson Halls):

The main entrance is on the southeast end of the major axis, which runs from southeast to northwest. The entrance leads directly into the trophy hall, a long, seven-bay, segmental arch vaulted space along the transverse (southwest-northeast) axis. The hall floor is lower than the other floors of this story, and has narrow five-bay galleries running along the long sides except where interrupted by the entrance. The gallery floor is on the same level as the rest of the main story. The central bay is wider than the flanking bays. The galleries are composed of sets of five segmental-arched cross vaults to the long vault of the hall, with intervening piers cut through in small roundheaded arches. On the southeast wall are windows; on the northwest, the ends of the cross vaults are occupied by glazed trophy cases containing captured battle flags and pennants.

The central axial vault continues to the northwest. There are several steps up from the floor of the trophy hall to the central landing of the grand double flights of marble steps which ascend to the northwest and southeast, parallel to the trophy hall, in two flights, each of which is separated by a landing. (See Figure I at end of this report). Below each flight is a room, now used as a dressing room, with access from the back of the stage, and the stair wells which give access to the basement. At the ends of the sunken floor of the trophy hall, four steps lead to the hall-lobbies which flank the orchestra level of the auditorium (long axis southeast-northwest for each). The long space of the trophy hall is extended through its intersection with the lobby-halls, through a segmental arch into the hyphens which connect Mahan Hall with Maury and Sampson Halls. The flooring is white marble in a diaper pattern with small black squares of marble at the interstices of the pattern. It continues to the arch, and is composed of composition tiles in the hyphens.

The walls and vaults of the trophy hall are plaster. The light fixtures are bronze in the head-down diving dolphin motif to be found in lights through the Flagg buildings, most particularly at Bancroft Hall. There are brass rails along the upper gallery spaces between the piers, and in the northeast flight of steps in the stair hall. The plaster details of the walls are not iconographic. There are corbels, festoons and leaves on the piers of the vaults, and bound sheaves of leaves around the avult arches. The lobbies are comparable in form to the trophy hall, although with only one floor level. At the southeast ends are segmental arched windows, corresponding to those of the southeast wall of the gallery. This end of the lobby opens onto the trophy hall gallery though a low round arch, through the vault pier, toward axis and into a comparable niche in the outside wall. The next bay of the lobby to the northwest is the intersection with the trophy hall proper. The outside vault piers (at the extreme North and East, and South and West corners of the spaces) are angled at 45°, but are otherwise the same as the piers of the trophy hall. Proceeding northwest, the lobby crosses the northwest gallery of the trophy, then through a simple segmental arch into a wide bay, with the descending winding stair beneath the grand stair hall toward axis, and with a window on the opposite wall; then through another simple arch to a series of four equal bays. On the interior wall each bay holds a double door. The first (proceeding still northwest) leads to the stair to the balcony on the inside wall, comparable in form to the basement stair (a square-plane winding staircase with an open center) but is of a smaller scale. The remaining three doors give access to the auditorium. There is another captured battle flag, in a similar case to those of the trophy hall at the northwest end of the lobby, and windows in the outside long walls. The double leaf doors are painted white, and appear to be oak (almost all the woodwork in the building is oak), with one large panel above a smaller lower one, the upper having double swags and festoons. Carved signs over the doors with three pendant guttae at each end, identify the use of each pair. The doors are the same on both sides, and when open fit

neatly into the reveals of the jamb, becoming part of the woodwork. The hyphens on this level are three bays long with tall segmental arched windows over wainscoted panels of oak. The baseboards are also of oak, with very simple mouldings. At the end of the northeast hyphen (toward the academic buildings) are double-leaf oak doors with eared (crocketed) architraves and a blank panel-frieze. The upper panel of each two-panel leaf is topped with an oval cartouche with scrolls, shell and branches. The comparable position in the southwest hyphen is occupied by a sliding fire-door with acoustical tile covering. Otherwide, the southwest hyphen is the same. The grand stair hall, with long axis running northeast and southwest rises in two double flights from the central landing outward. The northeast flight has two brass guardrails. Each double flight with central landing is flanked by six stepped podis, with an additional shallow one at the top few steps. (These have in the past been the location for displays of ship models, sculpture, etc., most of which is now at the Academy museum). The walls are largely unadorned below the level of the upper floor. The steps and landings are marble, the podia are limestone, the walls plaster. At the level of the next floor is a simple moulding, below a shallow ledge. The upper half of the stair hall space, above the ledge, is divided into seven bays. The walls are arcades, with transverse arches and shallow vaults in each bay, with circular glazed skylights in all but the central bay. All wall arches are decorated with mouldings, including those of the end walls. On the southeast wall, the two end bay arches contain doors into the "Hart" room, which occupies the space above the Trophy Hall. The doors are square-pane-glazed with transom, oak, with kick panels, and with a large cartouche of the Naval Academy seal in plaster above, topped by a glazed arch of small panes. Intermediate bays contain arched windows of similar glazing with a central swing panel above a plaster panel with a large central bracket. The central of these has the usual window, but instead of the panel, has a door in a pedimented aedicule reaching into the plane of the window, and opens from the "Hart" room onto a small iron balcony overlooking the stairhall's central landing. The doors at the upper level in the end bays of the northwest wall have two lower panels instead of a small kick-plate, with no lights above the cartouche, just a blank plaster arch. They give onto the lower level of the former stacks. The stack room is a long rectangular room divided into two levels, with the dimensions of the lobby-hall below. The walls have a five-bay segmental-arch arcade of shallow recesses on the inside, rectangular windows on the outside wall, with a flat ceiling and no surface decoration. The segmental arch bays are blind except for the central one, which has an oak "closet" at the floor level giving onto the auditorium balcony, in the southeast end, which at the upper stack level gives onto a small skylighted room through glazed-oak with sidelight doors. At the east corner of this room is a square-plan-spiral iron stair leading up. Three stacks are perforated iron plates suspended from the ceiling on iron bars. The bookshelves are gone, but their iron shoes remain. Iron rails with oak balusters protect the upper parts of the windows, and line the iron stair which leads back from the lower level up to

the stacks. The floor is narrow board hardwood. Across axis, the comparable space to the stack room is a single room with elaborate plaster surrounds at the windows, flat walls, and a plaster three-panel hung ceiling. The room has a presently inexplicable iron and oak gallery along the mid point of the inside wall, with access by an iron stair at the southwest end. There is a small toilet off the southwest end of the gallery, the rest is occupied by a heating duct. The walls have modern panelling up to the level of the gallery (immediately below the railing), and around all walls. The space below the gallery contains some storage, with original oak paneled interior walls. The doors into the auditorium below the gallery, and into the closets, are original oak doors, with some ornament removed so that the flush paneling could be applied. There is a "L" partition at the southeast end opening toward axis. The room is identified by a brass plaque on the partition as "Midshipmen--Faculty lounge." The floor is composition tile.

From the small rectangular room above the stack area, the spiral stair leads to a similar room with a large 17-pane glass-brick floor and a window on the northeast wall, overlooking the roof of the stack room. The stair continues up another floor to the level of the oculus windows of the auditorium roof, which illuminate the attic space above the vault. Adjacent to the stair (toward axis) on all three levels is a dumbwaiter shaft with oak bar frames, plywooded over. From the stair on the northeast side, access to the balcony is gained through large 3-panelled, oak double doors, painted on the auditorium side, varnished on the outside. On the southwest the stairs continue up to the first floor of the tower, which is the level above the upper library room mentioned earlier. The stair winds around for one more half flight to the attic again. On the lower first floor is the stair hall with a closet and a lavatory on the southwest. Next to the northeast is a square vestibule with paneled swag-decorated walls with modillion cornice and a ruined square skylight. There is paneled oak wainscotting, and a hardwood floor. Further along on the northeast is a large one-panelled oak door, with carved strap-work cartouche and swag over a smaller plain one, which gives onto a rectangular room with a one-step lecture stage at the northeast end. The plain plaster walls rise well up into the mansard, and as a result the southeast wall curves inward along its upper third. The floor is hardwood. There are thirteen 1/1 double-hung sash windows in simple oak architraves on the southeast wall, corresponding to three in the stair hall across axis (the northeastermost of which has been connected to a roof access hatch). The slit-window, which is found in the lavatory, is not present across axis. Double doors lead southeast to a square room below the bell tower, the former NAVAL INSTITUTE room. The plaster walls are paneled with painted wood moulding above a varnished panelled oak wainscote. On the northeast and southwest are double side-hinged windows with transoms over oaken radiator boxes in varnished oak architraves. The window frame on the southeast has a blackboard instead. The northeast window is half taken up by a metal ventilator. Above the windows is a series of plaster panels with a central cartouche in each, bearing a monogram and topped by an eagle; three on each wall. Above a moulding of dentils and modillions is a deep cove reaching to the central square panel of the ceiling. The

two double doors are oak, set in deep oak reveals. They have the customary 2-panels with swags on the outside, and wooden bull's eye "studs" on the inside. The floor is hardwood. A garguntuan air duct now occupies more than 50% of this room.

The space above the trophy hall is occupied by the single large room known as "Hart." Entered from the end bays of the stairhall (northeast, southwest) the room is seven bays long. Its interior windows are those described in the southeast wall of the stair hall, and have simple (recently added) notched-corner panels with wooden mouldings in the plaster walls below. The outside wall windows are identical, as are the walls. The walls are not articulated, except for those panels and the comparable panels between the bays. The major central bays of the long walls and the large end bays are enframed with large wooden arch mouldings the height of the walls, with leaf and rosette swags. Each has a central door in a pedimented aedicule with pedimented relief of an open book in a cartouche with branches, also apparently carved wood. The doors on axis (southeast and northwest) are glazed with a single large pane. Transverse axis doors have a large single cover-notched panel. The hung plaster ceiling consists of seven panels (corresponding to the seven bays) framed by plaster joists and beams. The central is the largest and most elaborate. All have compositions of medallions, blank cartouches, swags, festoons, ribbons, and rope mouldings. From each ceiling panel hangs a lacquered brass light fixture. There are brass ventilator panels in either side of the end arches. The doors in the end arches lead to rooms above the hyphen passages. The southwest space contains a lounge in the first two bays and at the third a recently added or redone powder room with ceramic tile floors, glazed tile wainscote and closet. The windows (aluminum awning sash) are in simple architrave frames. The ceiling has a small cove with simple wood mouldings. Door frames are like those of the windows. The opposite room, now inaccessible, is presumed to be a counterpart. The vestibule and tower room have been severely compromised by the addition of huge heating/ventilation ducts. The southwestern stair continues for another one-half flight to the attic above the auditorium roof vault. This space is open to the roof trusses, which are steel. The infill between the straight sides of the outermost trusses and the curve of the roof surfaces is filled in with vertical concrete slabs. The inner surface of the roof is square flat firebrick in a mastic of concrete with wood expansion joints. The floor of the attic is poured concrete around the edges. Otherwise the structure of the auditorium vault occupies the central part of the space. There is a masonry wall at the southeast side of the attic. Access to the bell tower is through a small opening in the wall from a small metal ladder and landing, to the area immediately above the vestibule of the tower floor, where the box of the light-well for the vestibule skylights is located centrally below a monitor.

The auditorium is a roughly square room with a shallow apsidal end on the northwest, an elliptical prosecenium arch and stage on the southeast, and a horse-shoe balcony with iron and oak railing around the sides. The balcony steps up in tiers, the main floor slopes slightly. The central bay of the apse is occupied above the balcony by a two story projection booth. The elaborate vault and the festoons of the various arches are plaster. The 11 bays of the walls are treated alike, except on the ground floor, where the southwest and northeast walls have doors, those on the northwest, windows.

D. Supplemental Material:

Ernest Flagg himself produced an informative general description of the complex in his 1908 articles in the American Architect and Building News:

> "The Library building at the back of the courtyard (Plate 7) has two stories and a basement, the latter faced with granite, boldly rusticated. The main entrance is approached by a double run of steps. Above the first platform a marble tablet which was made when the Academy was first established at Annapolis has been set in the parapet. It bears an inscription stating that the naval school was founded under the administration of President Polk; George Bancroft being Secretary of the Navy.
>
> "The first story of the building is made of alternate courses of brick and granite without ornamentation, and is pierced by six large windows and the central doorway. The second floor contains the main reading room and the front is ornamented by coupled doric columns between the windows and by paneled piers at the corners. Over the central window, which is larger and more elaborate in its treatment than the others, is a semi-circular pediment sheltering two reclining marble figures, which rest on the archivolt of the window. Above the main cornice is a balustrade. At the corners of the piers are trophies composed of prows, etc. The pedestals above the coupled columns were intended to receive the statues of six admirals, but they were omitted for lack of funds. The clock tower stands about 30 feet back of the facade. It is 25 feet square by 140 feet high. The entrance vestibule is an apartment 135 feet long by 34 feet wide (Plate 10). It is finished in Caen stone, and the floor is of sandstone. It is divided into a central nave and aisles by piers which support the vaulting. The nave is covered by a barrel vault, which is penetrated at each bay by transverse intersecting vaults which cover the aisles. The floors of the aisles are raised by five steps above the general level, making platforms intended for the display of some of the objects of historic and technical interest which have been accumulating for years at the Academy. On the side opposite the windows are recesses for glass cases,

which are to contain the captured flags. Other cases for these flags are to be provided for similar recesses at the sides of the grand staircase. All the flags are to be provided for similar recesses at the sides of the grand staircase. All the flags which the United States has ever captured on the high seas are now at the Academy; when they are properly arranged in the cases they will form an exhibit of the greatest interest.

"The grand staircase in two flights is beyond the trophy hall. Plate 8 shows one-half of it. The archway at the right is directly opposite the main entrance, and the monumental door on the left gives access to the stage of the auditorium. This door is intended for the use of the President or other distinguished visitors who may use the platform of the auditorium on special occasions. The large windows on the right open into the reading room of the Library. The stairway is lighted by circular skylights in the vaulting. The blocks at the sides of the steps are to serve as pedestals for objects of interest or beauty.

"The books are disposed in cases around the main reading room, which is directly over the trophy hall, and in two lateral galleries or stack rooms. The reading room is 135 feet long and 34 feet wide. It is lighted by seven large windows. The walls above the bookcases are plain, but the ceiling is richly coffered.

"Back of that part of the building in which are the reading room, trophy hall and stairway is the auditorium (see Figure 11). It is 84 feet wide and 66 feet deep. The back wall is curved and is pierced by five large windows. The hall has a gallery, and the total seating capacity is about 1,000.

"The Library is connected with the other two buildings which face the courtyard. The Academic Building, the one to the right, is almost wholly given up to classrooms and the offices of the heads of the departments. Its dimensions are 150 feet long and 83 feet wide.

"The class rooms are generally twenty-five feet square, each room being lighted on one side by a very large window above the blackboard which extends around the room. The court side of this building is show in Plate 9, and the river side in Plate 13. The basement walls are of granite and the rest of the walls of brick and granite. The roofs are of slate and copper. The Physics and Chemistry Building corresponds in size and outward appearance to the Academic Building, but the arrangement of the rooms is different. It contains a lecture hall having a seating capacity of about 600. Great care and study were bestowed on the planning and equipment of this building, and it is complete and commodious in both."

PART III. SOURCES

I. Original and Unpublished Sources:

A. Architectural Drawings, Plans, Engineering Drawings, Etc.

1. A note on the Y & D Drawings. The drawings executed for the Division of Yards and Docks are on file at the Plan Vault of the Public Works Office of the Naval Academy, Halligan Hall, Annapolis. This is the best single source for documenting individual building histories. There is a card-file index by building which gives primary access to the drawings, which are stored in numbered rolls. It may not be possible to locate a specific drawing by its Y & D number without first consulting these cards. There are many additional drawings which are filed in drawers and other plan-containers by name of building or type/use, with reference through the labels on the front of the drawers. These must be leafed-through. In short, a knowledgeable representative of the Public Works Division is probably essential to the use of these drawings.

Some attempt is being made to coordinate this collection with the Archives of the Academy, at Nimitz Library.

Many drawings were consulted in the preparation of this document. Lack of reference number generally means that one was lacking from the drawing. They can be retrieved via the file cards, with reference to the particular date or phase of the building's history.

Some drawings are described below; others are noted in the text in the appropriate locations, identified as precisely as possible. Still others (a vast number) were examined, and general impressions taken from them, but are not used here as specific references. The following annotations are intended to be a representative sample of drawings, but are not meant to be part of a definitive bibliography:

Y & D Drawing No's. 558627, 558628: Hall, Border, Donaldson drawings for the 1952 rehab of SAMPSON HALL: second and third floor plans showing original lecture hall and details of original built in fixtures.

2. Naval Academy Archives, Nimitz Library, Annapolis: Many of the older Flagg drawings have already been removed to the Archives. Very few have been catalogued by number. Rather, most items are easily retrievable by name of building and type of document, in this case plans and drawings. In particular, a very complete set of plans of the grounds of the Academy, from 1845 period onward, are available within a single collection. Ultimately, all the original Flagg drawings or copies of known Flagg drawings will be located here. At present, the set is more or less supplementary to the Public Works/Yards and Docks drawings at Halligan Hall.

B. Views, Photographs

1. Archives (same as above). The photographic collection is excellent, but individual photographs are not given catalogue numbers and it is not possible to make specific reference. Photographs are filed by building name. Some appear to be mislabled, although that is rare. One is particular is labeled "Bancroft Hall," but is probably a photograph of the construction of the brick base for the great northeast arch of MacDonough Hall, c. 1900, and is one of the very few photographs of actual initial construction discovered.

2. United States Naval Academy Museum contains many well-known early photographs, most of them well-known, and/or published, including a photograph of the concrete structure of the Chapel.

3. Special Collections, Nimitz Library

Numerous photographs, mostly of activities rather than of specific buildings so that architectural information gained is likely to be fortuitous. One small collection, the Admiral Strange Album, contains very poor snapshots, mostly of the experimental station across the Severn River from the Academy, but includes one photograph of the concrete shell of the chapel under construction. The Special Collections also contain a collection of Dahlgren Hall drawings, reduced and bound. The reductions were bound with some photographs of the process.

4. Houghton Hawley (spelling uncertain) views, 1899

Available mounted on cardboard or in a printed folio at the Archives. These views are renderings from a bird's eye perspective of Flagg's final concept for the rebuilding of the Academy. According to Flagg's own account, this set of drawings seems to best exemplify his optimum plan. The relationship between the present Academy and this intention are readily apparent in this plan, although the differences in the buildings as they were constructed are often striking. All buildings are represented in some form, from Bancroft Hall very much as built, through the first stages of the Chapel, to the much more elaborate conceptions for the academic buildings, now the Mahan complex. The conception for the boat basin and its relationship to the present MacDonough Hall is very clear. Several individual buildings are represented in the drawings, including the Memorial Hall rooms of Bancroft Hall and the Chapel.

5. Miscellaneous

The Archives is at present (December 1980) in process of taking custody of several miscellaneous drawings and sketches, including

a color rendering for a stained glass window in Bancroft Hall and a sketch for one of the pylons to be placed at the ends of the seawalls of the boat basin, with a fully rigged mast atop, the only such conception encountered in this study.

C. Documents

1. The Archives of the Naval Academy at Nimitz Library contain numerous documents relating to specific buildings by which they are filed. This consists almost entirely of superintendent's correspondence, and has been of limited usefullness. There is a vast number of peripherally interesting material to be examined before any yield relating specifically to this type of study may be gained. At that, the information was of a very small-detail nature. As an example, a letter dated June 10, 1927, in Box 7, Folder 4 under Mahan Hall, provided the description of the first tower-floor structure which is to be found in Mahan Hall documentation. Other letters are specifically referred to in the text.

Published Sources

the NAVAL INSTITUTE, Proceedings of; indexed and available at the Special Collections Department of Nimitz Library, The Naval Academy, Annapolis. There are a few articles which deal with the buildings and grounds.

Edsall, M.H., A Place Called the Yard, 1978, the Douglas W. Edsall Company, Annapolis, Maryland. A very useful walking tour of the Academy with many specific references to the details of the buildings, and a very fine overview of life at the Academy. The book is well illustrated.

Sweetman, Jack, The U.S. Naval Academy, an Illustrated History; the Naval Institute Press, Annapolis, 1979. An excellent, comprehensive, and scholarly history of the Academy as an institution. There are some useful references to buildings, but the greatest value here is in the explication of the details, politics and other machinations involved in bringing about the "new" Naval Academy.

Flagg, Ernest, "New Buildings for the U.S. Naval Academy, Annapolis, Maryland," in The American Architect and Building News, in two parts: Vol. XCIV, No. 1697, July 1, 1908; and No. 1698, July 8, 1908. Much information of the original and subsequently thwarted intention of the architect. There are no better published photographs from any era of the academy's history than those presented here. Several excellent detailed drawings of plans, sections, and elevations are also included. This is the single best source for documenting the early Flagg work, regardless of the extensive editorializing.

Harper, Walter B., inspector in charge of the Academic Group, United States Naval Academy: "Concrete Piles at the United States Naval Academy, The Engineering Record, March 4, 1905. Discusses the footings of Maury, Mahan and Sampson halls in great detail.

E. Likely Sources Not Yet Investigated

National Archives and Record Service, GSA, Washington, D.C.: The major body of material which was left unexamined but seems to have some potential for filling in a few details is here. Sufficient material was available at the Academy and in Annapolis to answer the relevant questions raised by this study, and time did not permit a visit to the National Archives. Specifically, three collections are of interest:

Relating to Buildings and Grounds
1858-1910

115. LETTERS SENT AND RECEIVED AND CONTRACTS FOR CONSTRUCTION AND GRADING WORK AT THE ACADEMY. June 1858-June 1860. 1 vol. (No. 675). 1 in.
Arranged chronologically. A table of contents is in back of the volume.
Fair copies of letters and contracts relating to the erection or repair of buildings, grading of grounds, and supply of materials for the Academy. Included are numerous drawings and scale plans of buildings to be constructed.

116. PRESS COPIES OF LETTERS SENT BY THE SUPERINTENDENT RELATING TO THE PROPOSED REBUILDING OF THE ACADEMY. Marc. 1895-May 1899. 1 vol. (No. 503). 1 in.
Arranged chronologically. No index.

Letters relating to the proposal to erect new buildings at the Academy. A commission to study the condition of Academy buildings was appointed by the Secretary of the Navy in conformity with a resolution adopted by the Board of Visitors in 1895. A copy of the report of the Board, January 1896, citing the poor condition of the existing buildings is included.

117. PRESS COPIES OF LETTERS SENT BY THE SUPERINTENDENT RELATING TO BUILDINGS ANO GROUNDS. Dec. 1902-Mar. 1910. 23 vols. (Nos. 460-482). 3 ft.

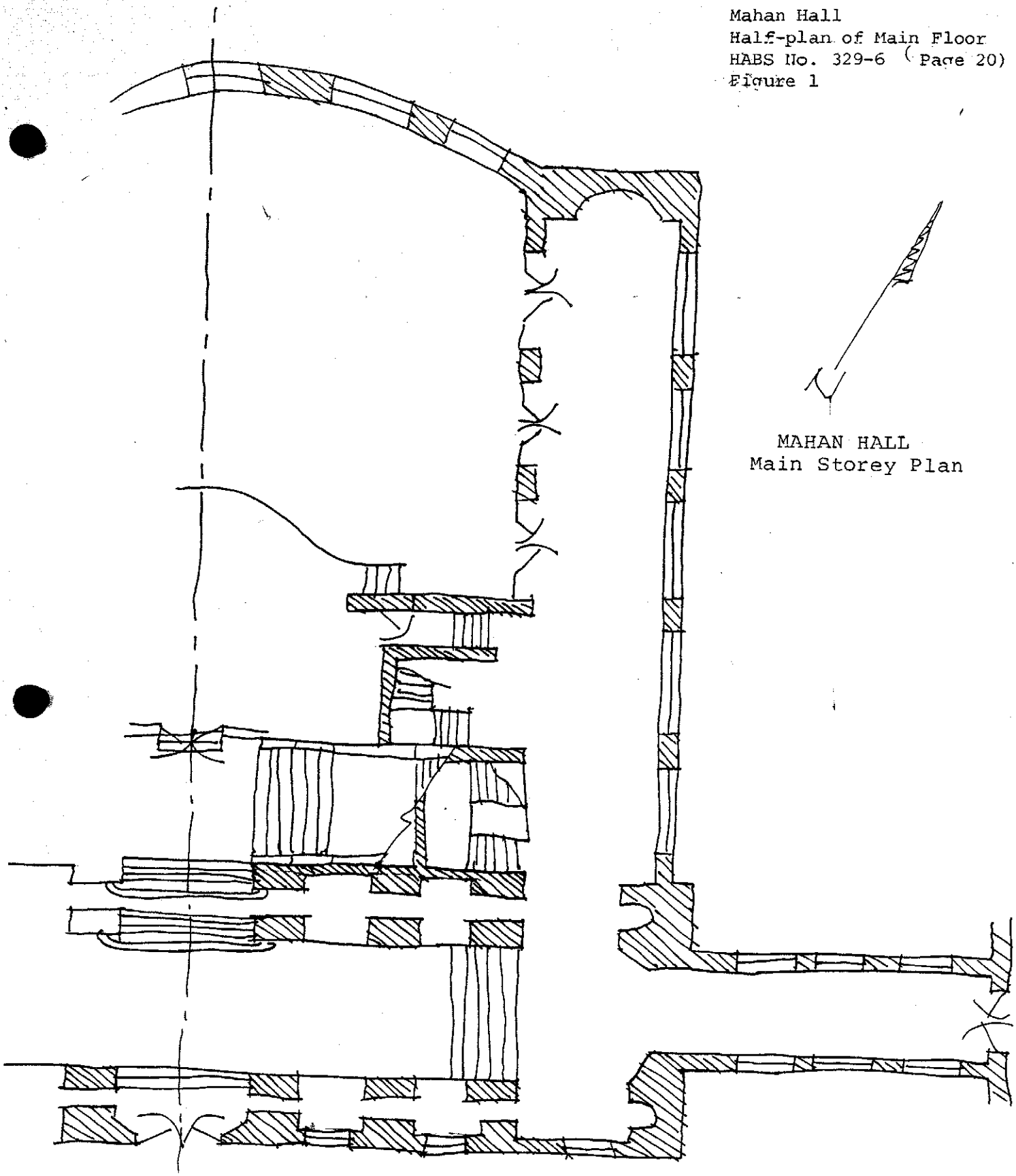
Arranged chronologically. A name index is in volume 460 and a very incomplete name index is in volume 461. No indexes in other volumes.

Include some copies of letters sent by the officer in charge of buildings and grounds, however they are not duplicated in entry 181. Letters sent by the Superintendent after March 11, 1910, are copied in his letterpress books, described in entry 3. Letters sent by the Superintendent to the Bureau of Navigation (Jan. 1905-May 1907) relating to buildings and grounds are contained in entry 17.

PART IV. PROJECT INFORMATION

This work was produced by John D. Hnedak, Architectural Historian, Annapolis, Maryland, as consultant to the National Architectural and Engineering Record, with the assistance of Janet Davis, Architectural Historian, Baltimore, Maryland. We gratefully acknowledge the generous assistance of Mrs. Price of the Naval Academy Archives, Nimitz Hall, and her staff; of Mr. E. B. Miles of the Office of Public Works, Naval Academy and of the staff who work with him in the office of REal Estate, the Plan Vault and the Ouplicating Room; and of Captain Gaworkowitz at the office of Public Works.

Mahan Hall
Half-plan of Main Floor
HABS No. 329-6 (Page 20)
Figure 1



MAHAN HALL
Main Storey Plan

ADDENDUM TO
U.S. NAVAL ACADEMY, MAHAN HALL, MAURY HALL, AND SAMPSON HALL
(ACADEMIC GROUP)
Annapolis
Anne Arundel County
Maryland

HABS No. MD-329-6

HABS
MD,
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XEROGRAPHIC COPIES OF COLOR TRANSPARENCIES

HISTORIC AMERICAN BUILDING SURVEY
National Park Service
U.S. Department of the Interior
Washington, D.C. 20013